

The MINES of ARIZONA

This department is under the direction of Mr. W. E. Defty, the well known mining engineer, who will carefully scrutinize all matters relating to mining in order that only reliable information regarding legitimate enterprises shall find a place here.

The Republican would be pleased to receive information from any part of the state regarding the development of the mining industry. All communications should be addressed: Mining Department Arizona Republican.

Quick Silver Deposits North of Phoenix.

The pamphlet recently published by the Geological Survey by F. C. Ransome is very disappointing from a geological standpoint, sampling and general conclusions. There were several hundred feet of the ground sampled and showed a continuous run of low grade material the results from this would have been obtained had there been any desire to do so. The reference to the location of the property could have been equally well applied to any property in Arizona until it became a producer. Distance is but little if you have the material. However we are pleased to quote the favorable points, regarding the properties gone over.

The geologic facts of occurrences and the sampling by Mr. Hutchinson indicate that the parts of the lodes of minable dimensions now exposed to view carry no more than 3 or 4 per cent of quicksilver at the most, although exceptional stringers here or there which might be sorted out from the broken ore are of much higher grade. To obtain a 3 to 4 per cent product—that is, \$50 to \$500 per ton at present prices—considerable sorting would have to be done, with rejection of three-fourths or more of the rock broken. The chances for obtaining considerable quantities of 2 per cent or \$40 ore with only moderate sorting appear to be good.

When it is remembered that the New Idria mine in California, the largest producer of quicksilver in the United States, has for some years been making substantial profits on ore from which 0.5 to 1 per cent of quicksilver is won, it is evident that the Mazatzal deposits have considerable promise. Although costs are probably lower in California than in Arizona, the situation of the Idria mine is comparable with that of the Arizona deposits in that the mine has a 60-mile wagon haul to the nearest

railway. This sampling should be directed particularly to the estimation of the probably available quantity of ore of the minimum grade that can be profitably worked, without sorting. To what width, for example, can a lode be mined as a whole to get a 1 to 2 per cent ore and how much of such ore can reasonably be considered available?

"Facts that promise well for future exploitation are the undoubted persistence of the lodes for long distances over the surface and the lack of any evidence of decrease of tenor with increase in depth.

Lindgren states that no quicksilver deposit has been worked to a depth of 2,000 feet below its outcrop. On the other hand, the work already done on these deposits gives no foundation for a belief that the cinabar is less abundant at moderate depth than near the surface.

The report further refers to the crude plant erected on one of the properties but this does not apply to the other three groups of claims, which are of a very promising nature well mineralized, strong in width and persistent continuity and there seems to be little doubt would develop highly successful if practically opened up and there is evidence that much work will be taken in hand in the very future, such work will undoubtedly prove of great value to continuous production. The present is surely a great opportunity in regards these properties.

Advance in Quicksilver

Quicksilver is now quoted at \$300 per flask of 25 pounds, an advance of \$20 per flask in about four weeks and a new high record.

In normal times the price of quicksilver ranges from \$35 to \$45 per flask, and just before the war it was selling at \$36.75 per flask.

The production of quicksilver in this country is a gradually receding one. In 1914 the output was 15,500 flasks and this year it will be about the same. Of late years the output has been decreasing at the rate of between 5,000 and 10,000 flasks annually.

The recent rise in price has been due primarily to the fact that imports are no longer possible, embargoes have been placed on shipments from Austria, Spain and Italy. The receding supply in this country has for some time forced domestic manufacturers to rely to an increasing extent upon foreign importations and as no foreign quicksilver is now coming through, the present sensational quotations are the result.

Boston's interest in the industry is represented by the New Idria Quicksilver Mining Company, which this year will produce about 6,000 flasks at a cost of \$50 per flask.

The only other large single producer in this country is the Chisos mine, a private corporation owning a property in Texas which produces between 4,000 and 5,000 flasks a year.

Gryalva Mine

This property near Wickenburg is owned by Goldberg Brothers the well known clothing firm of Phoenix. The property is an old one and some years ago some very rich ore was taken

from the workings, but there was no systematic attempt at development. The claims have been worked in a desultory way for some years past with more or less ore production. The property was bonded recently to eastern people who have continued developments and it is stated with very satisfactory results and sufficient to warrant the erection of a reduction plant. The mill has now been completed and the ore from the mine is now being treated on the ground and it is reported with very good success.

Green-Cananea

This property although in Mexico affords as much interest to Arizonians as if it was in this state. Bill Green that unique character who successfully brought the property before the eyes of the world was a resident of Arizona. The first money for his preliminary work was obtained from residents of Arizona who pinned their faith on Green. Hundreds, nay, perhaps thousands in Arizona backed him by buying stock in his enterprise, everyone liked and had faith in him and this faith was well deserved. Green never went back on a friend or anyone who helped him and he never forgot any kindness, however trivial. The first and protracted litigation over the Cananea properties were fought out in Arizona courts. The property is a great one but has met with constant interruptions during the trouble in Mexico but Greene-Cananea officials are doing everything possible to bring the production back to what was when the mines closer, and efforts are already being made to get more men to the properties. When the mines were shut down on Oct. 21, last, the output was at the rate of 4,000,000 pounds of copper a month, the production for the 21 days in October having been nearly 2,000,000 pounds.

Railroad transportation to the mines has been resumed, all the damage to the line to Naco having been repaired. While it is realized by the management that it will take quite a little time to complete the organization at the properties, it is believed the production will be up to its recent figures within a comparatively short time.

It is stated that oil and other materials needed at the mines have already been shipped from Naco and copper is now on its way east. In fact all the red metal taken by General Villa from the properties has been recovered and it now across the border and being sent to this section of the United States.

Private advices received in this city from Mexico recently state that the Villa troops had been entirely cleared out of Cananea and were now concentrated at or near Naco. The dispatches add that General Villa himself had retired to the Mormon colonies in Chihuahua. The routing of the Villa troops explains the ability of the Greene-Cananea company to resume work.

It is stated that General Carranza has put a good sized garrison at Cananea and this leads officials of the Greene-Cananea company to believe that they can now go forward uninterruptedly. This action also has caused the efforts to get the mines working as soon as possible.

The total output of the smelters of the Greene-Cananea Copper Co. from Oct. 1 to Oct. 21, the date on which the properties were closed because of the disturbances in the Sonora district in Mexico, was approximately 2,900,000 pounds. This total includes custom ore. Although no figure for the latter is available, it is estimated that the run was about on a parity with previous monthly production figures. The usual amount of custom ore handled is about one-eighth of the total, so that it is figured this contributed about 360,000 pounds to the total in the period.

Officials of the company estimate that the production from time of resuming operations last Saturday until the end of this month will be between 1,500,000 and 2,000,000 pounds. These figures allowances are made for a rather slow start and the holidays at the end of the month.

From Far Away Skagway.

A letter has been received from far away Skagway, Alaska, inquiring about a lost mine near Phoenix. The writer had become acquainted with some one from Phoenix who had repeated to him the alluring story of a lost mine near Phoenix and that the ore was so rich that nearly all the inhabitants of Phoenix were constantly on the hunt for it. The name of the lost mine is the Bill McKeever. But as we didn't know Bill and didn't know whether he had lost a mine or not, or whether some one had recently found it, we are unable to give the writer any particulars regarding it so as to allay his curiosity. If any of our readers are on to this and will tell us we will undertake to keep the information strictly confidential unless the one with the knowledge is willing to give a quit claim deed of the mine to our correspondent in Alaska.

The Silver Mines

The world-wide demand for silver for coinage and the resulting advance in the price of the white metal has caused activity in the shares of silver producers, like Ontario, Batopilas, the Cobalts and others.

Cost of production for silver is difficult to estimate, since the metal has been for years largely a by-product of the lead, copper and zinc mines. The fall in the price of silver after the adoption of the gold standard by most of the important nations, drove many mines out of business before quotations had reached present levels.

Improved mining methods will have enabled some strictly silver properties to show good profits, but the principal beneficiaries of the present boom will be the mines already in operation which produce other metals as well. The electrolytic process of refining copper ores, now used even at Lake Superior, separates and saves silver values formerly lost. Anaconda producing an ounce of silver to about 25 pounds of copper profits greatly why the rise in silver. Butte & Superior ores carry from 7 to 14 ozs. of silver per ton, and after the zinc has been extracted the residue is

sent to a refiner for further treatment.

The copper mines in the southwest average much less in silver than those of Butte, with more gold. The lead producers like U. S. Smelting, Utah Consolidated and the Tintic mines benefit largely from the silver boom.

Greene-Cananea and the other Mexican properties are important producers of silver, Greene averaging around one ounce to 35 lbs. of copper.

The Ore Finder

A true story came to light a short time back regarding a real manufactured instrument for finding ore. It wasn't a willow stick, or a divining rod but a real sure enough ore finder and it was discovered in that very important mining center near Globe.

The credulous one had seen the instrument in a house where he was boarding whilst engaged in looking over the district, at last his curiosity compelled him to ask the landlady what it was and she said it was left there by a man and it was an instrument for locating ore. In the course of time and after repeated conversations it was agreed that the curious one should pay the landlady \$25 for a half interest in the instrument and in all ore bodies discovered they were to share and share alike. But selfishness got the better of the landlady and he concluded to make a \$50 offer for the ore finder then all the mines discovered would be his own. The offer was made and eagerly accepted and after a few suggestions as to the use of the instrument, the new owner started out to find the bonanzas. But after a great deal of time spent, worry and bother, he asked the advice of others regarding the manner of rightfully using the ore discoverer. It was eventually proven that it was an ophthalmoscope or eye tester used by opticians for determining what glasses were required by their patients. This discovery made the proprietor of the instrument so mad, that he swore all kinds of languages at his late landlady and demanded the return of his money, but all she would do was to laugh. This was adding to the injury and he became so enraged that he entered suit in the justice court for the recovery of the \$50. But when the case was called for hearing, the whole court including the stern justice, joined in the merriment of the affair and the plaintiff was laughed out of court and he still owns the \$50 ore finder.

Some Big Dividends from Mining. Eight companies alone, namely Anaconda, Utah Copper, Chino, Nevada Consolidated, Ray, Miami, Calumet & Hecla, Calumet & Arizona, are distributing no less a sum than \$11,170,000.

Pile up Three Cord's of Gold. NEW YORK—The New York Assay office has just finished turning \$162,500,000 in British sovereigns, which have been imported since Oct. 27, into gold bars. The bars have been deposited in a vault in the sub-basement of the Federal Reserve Bank, and they make a pile of gold measuring 396 cubic feet or more than three cords.

In the pile, which is six feet in height, are 16,345 bars, each worth about \$7,000, and about seven inches in height. The bars are laid in nineteen rows, and make a total weight of some 290 tons.

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33x4 ... 13.10	Gray	3.05	3.45
34x4 ... 13.50	Gray	3.15	3.50
35x4 ... 13.75	Gray	3.25	3.60
36x4 ... 14.25	Gray	3.35	3.70
34x4 1/2 ... 16.80	Gray	3.90	4.35
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